

FISHES COLLECTED IN THE PHILIPPINE ISLANDS BY  
MAJ. EDGAR A. MEARNS, SURGEON, U. S. ARMY.

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While stationed in the Philippines during 1904, Maj. Edgar A. Mearns, surgeon, U. S. Army, made a small collection of fishes, chiefly at Manila.

The collection contains 17 specimens (representing 9 species) from Manila, 4 specimens (3 species) from Jolo, Sulu Archipelago, 2 specimens (1 species) from Siassi, Siassi Island, and 10 specimens (4 species) from Caldera Bay at Zamboanga, Mindanao Island; the total number of species being 17, represented by 33 specimens.

The collection, though small, is of interest in that it contains three new species and that no specimens had been previously obtained from Jolo, Siassi, or Zamboanga.

The types of the new species and a series of specimens of all the other species are deposited in the U. S. National Museum.

Family CHANIDÆ.

1. CHANOS CHANOS (Forskål).

*Mugil chanos* FORSKÅL, Desc. Anim., p. 74, 1875, Red Sea.

*Chanos chanos*, JORDAN and EVERMANN, Fishes Hawaiian Islands in Bull. U. S. Fish Comm., XXIII, 1903 (1905), Pt. 1, p. 56, fig. 10.

Head 3.75 in length (not including opercular membrane); depth 4; eye 3.50 in head; snout 3.85; interorbital 3; D. II, 14; A. I, 9; scales 85 to end of caudal vertebrae; membranes entirely united across isthmus; gillrakers very fine and crowded together, more than 100 on lower limb, their length 1.25 in pupil; no pharyngeal teeth; origin of dorsal midway between tip of snout and caudal; origin of ventral

midway between base of caudal and posterior margin of eye. Color in spirits, silvery.

One specimen from Manila, Cat. No. 55602, U.S.N.M.; length 5.55 inches.

### Family HEMIRAMPHIDÆ.

#### 2. HYPORHAMPHUS QUOYI (Cuvier and Valenciennes).

*Hemiramphus quoyi* CUVIER and VALENCIENNES, Hist. Nat. Poiss., XIX, 1846, p. 26, New Guinea.—GÜNTHER, Cat., V, p. 262.—BLEEKER, Atlas, VI, pl. ccl, fig. 3.

Head (to tip of upper jaw) 4.20 in length; depth 8.75; lower jaw beyond tip of upper, 6.25 in length without caudal; D. 15; A. 15; interorbital 4 in head; snout 3; width of upper jaw greater than its length; origin of dorsal directly above origin of anal; origin of ventrals midway between base of caudal and middle of eye.

Color in spirits, silvery, a blue line on side; three narrow dusky lines on back.

One specimen from Manila, Cat. No. 55604, U.S.N.M.; length 4 inches.

### FAMILY MUGILIDÆ.

#### 3. MUGIL SUNDANENSIS Bleeker.

*Mugil sundanensis* BLEEKER, Sumatra, II, 1853.—GÜNTHER, Cat., III, p. 425.

Head 4.20 in length; depth 4.20; eye 3.50 in head; free portion of eye 5.20; snout 6; interorbital 2.50; D. IV, 9; A. 9; scales 29 to end of caudal vertebrae; adipose eyelid strongly developed; caudal emarginate; origin of dorsal midway between tip of snout and end of caudal vertebrae; origin of anal midway between end of caudal vertebrae and origin of ventrals, being somewhat in advance of origin of soft dorsal; pectoral 1.50 in head.

Color in spirits, brownish; dorsal and anal with wash of dusky; no dusky spot at axil of pectoral; an indistinct dusky area or stripe along middle of side.

Three specimens from Manila, Cat. No. 55,606, U.S.N.M.; length 4.50 to 6 inches.

#### 4. LIZA TROSCHELII (Bleeker).

*Mugil troschelii* BLEEKER, Nat. Tijdschr. Ned. Ind., XVI, p. 277.—GÜNTHER, Cat., III, p. 448.

Head 3.75 in length; depth 3.75; eye 3.75 in head; snout 5.50; interorbital 2.20; D. IV, 9; A. III, 9; scales 34 to end of caudal vertebrae; no adipose eyelid; caudal emarginate; origin of dorsal slightly nearer end of caudal vertebrae than to tip of snout; origin of anal

nearer end of caudal vertebræ than to origin of ventrals, being under origin of soft dorsal: pectoral about equal to length of head.

Color in spirits, yellowish brown; soft dorsal and anal with slight wash of dusky; a distinct black spot at upper axil of pectoral.

Five specimens from Manila; length 3.20 to 5.75 inches.

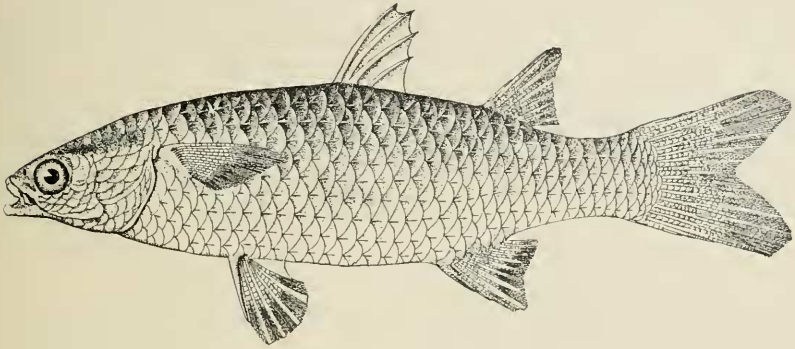


FIG. 1.—LIZA TROSSCHELII.

## FAMILY OPHICEPHALIDÆ.

### 5. OPHICEPHALUS STRIATUS Bloch.

*Ophicephalus striatus* BLOCH, Ichth., VII, p. 141, 1793, Malabar.

*Ophicephalus striatus*, GÜNTHER, Cat., III, p. 474, 1861.

Head 3 in length; depth 5.50; eye 8 in head; snout 5.35; interorbital 4.10; D. 40; A. 26; scales 5-54-7; scales on head large.

Color in spirits, brown; belly yellowish white with a few scattered brown dots or spots, a brown line back from angle of mouth; fins brown, except ventrals and tip of pectoral, which are yellowish, with brown dots.

Two specimens from Siassi, Siassi Island; length 4 and 8.75 inches (Field Nos. 98 and 100).

## Family LUTIANIDÆ.

### 6. TERAPON JARBUA (Forskål).

*Sciæna jarbua* FORSKÅL, Desc. Anim., p. 50.

*Therapon servus*, GÜNTHER, Cat., I, 1859, p. 278.

*Therapon jarbua*, DAY, Fishes India, p. 69, pl. XVIII, fig. 4.

Head 3 in length; depth 3; eye 3.30 in head; snout 3.20; D. XII, 10; A. III, 9; scales 85; margin of preopercle toothed, the teeth larger at angle; a strong spine from posterior margin of opercle; pre-orbital denticulate; caudal emarginate.

Color in spirits, yellowish white, with three dark longitudinal stripes, which are concave to the dorsal surface; caudal with oblique dark bands; dorsal with dusky blotch.

Three specimens from Manila, Cat. No. 55605, U.S.N.M.; length 2.50 to 3.75 inches.

## Family HÆMULIDÆ.

## 7. POMADASIS ARGENTEUM (Forskål).

*Sciæna argentea* FORSKÅL, Descr. Anim., p. 51.

*Pristipoma argenteum*, CUVIER and VALENCIENNES, Hist. Nat. Poiss., V, p. 249.—GÜNTHER, Cat., I, p. 291.—DAY, Fishes India, p. 79, pl. VIII, fig. 3.

Head 2.85 in length; depth 2.75; eye 3.20 in head; snout 3.20; interorbital 4.20; D. XII, 13; A. III, 8; scales 49; preopercle strongly denticulate; opercle with two flat spines.

Color in spirits, yellowish white; numerous narrow dusky rows of brown dots on upper half of body.

One specimen from Manila, Cat. No. 55601, U.S.N.M.; length 3 inches.

## 8. PLECTORHYNCHUS CRASSISPINUS (Rüppell).

*Diagramma crassispinum* RÜPPELL, N. W. Fische, p. 125, pl. xxx, fig. 4.—DAY, Fishes India, p. 78, pl. xx, fig. 4.

Head 2.55 in length; depth 2.10; eye 3.75 in head; snout 3; interorbital 4.1; D. XIV, 16; A. III, 7; pores about 53 in lateral line to end of caudal vertebrae; head scaled; preopercle denticulate; opercle with two flat spines; second anal spine long and strong, 2 in head; caudal rounded; teeth in jaws, none on vomer or palatines.

Color in spirits, dusky grayish; caudal white; anal, ventrals, and soft dorsal black, the soft dorsal and anal with narrow margins of white.

One specimen from Manila, Cat. No. 55603, U.S.N.M.; length 2.1 inches.

## Family SPARIDÆ.

## 9. LETHRINUS MAHSENOIDES Bleeker.

*Lethrinus mahsenoides* BLEEKER, Verh. Bat. Gen., XXIII, Spar., p. 15.—GÜNTHER, Cat., I, p. 464.

Head 2.90 in length; depth 2.50; eye 3.75 in head; snout 1.65; interorbital 3; preorbital 2.50; D. X, 9; A. III, 8; scales 6-48-15; teeth in a single row, the 4 anterior canines of each jaw rather large, 4 molar teeth of upper jaw bicuspid; a single bicuspid molar in lower jaw, the remaining teeth rounded or conical; lips thick; caudal forked; ventrals extending past vent.

Color in spirits, grayish with slight tint of green; the center of scales yellowish; dorsal slightly clouded with dusky; tip of caudal dusky; axil of pectoral dusky; otherwise fins without markings.

One specimen 10 inches long from Jolo, Sulu Archipelago.

## 10. LETHRINUS MCENSII Bleeker.

*Lethrinus mcensii* BLEEKER, Nat. Tijds. Ned. Ind., IX, 1855, p. 435.—GÜNTHER, Cat., I, p. 455.

Head 2.90 in length; depth 3; eye 4 in head; snout 1.90; preorbital 2.50; interorbital 3.20; D. X, 9; A. III, 8; scales 6-49-14; teeth in single row, the 4 upper canines of upper jaw largest, curved; 6 flat gillrakers on lower limb.

Color in spirits, dirty grayish, with about 6 dusky bands over back more narrow than interspaces; dorsal, caudal, and anal slightly clouded with dusky; other fins yellowish; some indistinct dusky bars on body, alternating with the bands over back.

One specimen from Jolo, 9 inches long.

## Family ACANTHURIDÆ.

## 11. HEPATUS MATOIDES (Cuvier and Valenciennes).

*Acanthurus matoides* CUVIER and VALENCIENNES, Hist. Nat. Poiss., X, 1835, p. 150, Oualai.

*Acanthurus annularis* CUVIER and VALENCIENNES, Hist. Nat. Poiss., X, 1835, p. 153, Ile de France.

*Acanthurus blochi* CUVIER and VALENCIENNES, Hist. Nat. Poiss., X, 1835, p. 153, Ile de France.

*Hepatus matoides*, JORDAN and EVERMANN, Bull. U. S. Fish Comm., XXIII, 1903 (1905), p. 387 (Honolulu).

Head 3.45 in length; depth 1.78; eye 4.50 in head; snout 1.35; interorbital 2.75; D. IX, 25; A. III, 26; teeth flat, crenulate; spines on side of caudal peduncle small, equal to two-thirds of eye; caudal lunate.

Color in spirits, uniform black, without lines; fins uniform black without lines, except pectoral, which is bright yellow on distal half of fin.

Another specimen, probably the young of this species, has the following characters:

Head 3 in length; depth 1.75; eye 2.75 in head; snout 1.75; interorbital 2.75; D. IX, 24; A. III, 24; spines on caudal peduncle small, about one-half of eye; lateral line with a long low curve, becoming straight under posterior part of soft dorsal; teeth flat, crenulate.

Color in spirits, uniform black; pectoral yellow, the caudal with a slight trace of whitish at base.

One specimen 1.75 inches long from Zamboanga and one 8.75 inches long from Jolo.

## Family PLATYCEPHALIDÆ.

## 12. PLATYCEPHALUS INSIDIATOR (Forskål).

*Cottus insidiator* FORSKÅL, Descr. Anim., p. 25, 1775, Red Sea.

*Platycephalus insidiator*, GÜNTHER, Cat., II, p. 175, 1860.

Head 3.20 in length; depth 11; width of head at opercle 1.50 in its length; eye 6.5 in head; snout 3.75; interorbital 8; D. VII, 12; A. 13; scales about 76; lateral line unarmed; two spines at angle of preopercle, their length 1.50 in eye; interorbital concave, scaled; spines of head inconspicuous.

Color in spirits, brownish above, with indistinct dusky blotches or mottlings; white below.

One specimen from Manila, Cat. No. 55599, U.S.N.M.; length 7.50 inches.

## Family TETRAODONTIDÆ.

## 13. CANTHIGASTER COMPRESSUS (Procé).

*Tetraodon compressus* PROCÉ, Bull. Soc. Philom., 1822, p. 130.

*Tetraodon striolatus*, GÜNTHER, Cat., VIII, p. 304.

Head 2.45 in length; depth 2.10; eye 2.75 in head; snout 2; interorbital 3; D. 9; A. 8; nostrils in shallow tube; caudal rounded.

Color in spirits, grayish; bluish above with blue lines from eye and on head; a large black ocellus at base of dorsal fin; fins yellowish; caudal with whitish band.

One small specimen from Zamboanga, Mindanao; length 1 inch.

## 14. TETRAODON IMMACULATUS Bloch and Schneider.

*Tetraodon immaculatus* BLOCH and SCHNEIDER, p. 507.—DAY, Fishes India, p. 704, pl. CLXXXIII, fig. 4.—GÜNTHER, Cat., VIII, p. 291.

One specimen from Manila, Cat. No. 55600, U.S.N.M.; length 4.80 inches.

This specimen belongs to variety A of Günther's Catalogue (VIII, p. 292), the body without bands or spots, the upper posterior portion with a slight tint of dusky; posterior part of caudal dusky; fins rounded; D. 10; A. 9; head 2.75 in length; eye 4 in head; snout 2.10; interorbital convex equal to snout; length of caudal equal to its distance from origin of dorsal; body spinate, except on snout and posterior portion.

## Family GOBIIDÆ.

## 15. MAPO MEARNSI Evermann and Seale, new species.

Head 3.30 in length; depth 5; width of head much greater than its depth, which is 1.80 in its length; cheeks prominent; D. VI, 10; A. 9; scales 38, about 10 in vertical series; head without scales except on the

crown; eye 4 in head; snout 4; interorbital about equal to pupil; about 14 of the upper pectoral rays detached and silky; tongue emarginate, free anteriorly; teeth small, in several rows.

Color in spirits, greenish or grayish; some very indistinct dusky markings on middle line of side; no white dots; dorsal blotched with dusky; a dusky blotch on posterior part of spinous dorsal.

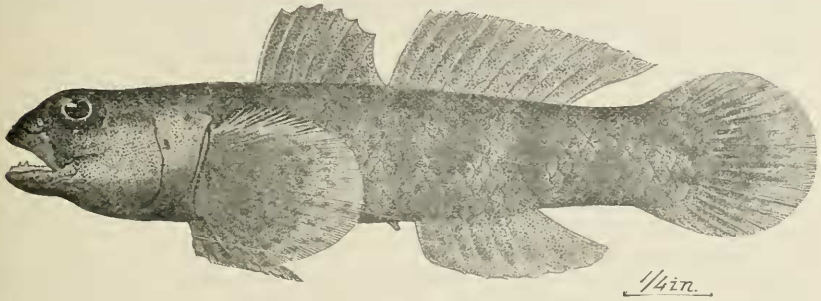


FIG. 2.—*M. PO MEARNSEI*.

Two specimens, the type, Cat. No. 55624, U.S.N.M., a specimen 2.5 inches long, from Zamboanga, Mindanao, and a cotype, No. 1495, Bureau of Fisheries, a specimen 1.55 inches long, from same place.

We take pleasure in naming this interesting species for Dr. Edgar A. Mearns, U. S. Army, who collected the type.

16. *GobiUS CALDERÆ* Evermann and Seale, new species.

Head 3.75 in length; depth 5.20; eye 4 in head; snout 3.50; interorbital equal to pupil; D. VI, 11; A. 10; scales 26, 9 in vertical series; tongue adnate, merely truncate, scarcely, if at all, emarginate; width

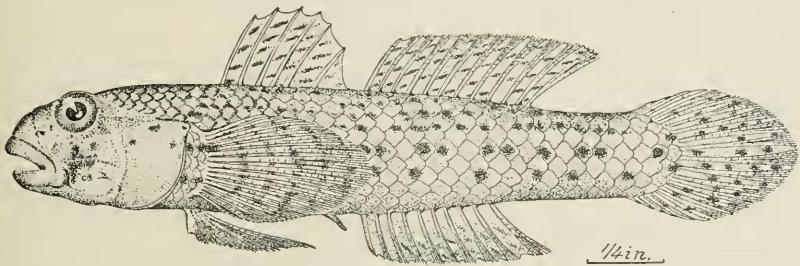


FIG. 3.—*GobiUS CALDERÆ*.

of head 1.20 in its length; depth of head 1.75; teeth in jaws in several series; body firmly scaled; head naked, except on nuchal region; caudal rounded; ventral stout, disk-like.

Color in spirits, yellowish with tint of green; about 6 longitudinal black bands on side, the 2 lower ones broken up with about 8 black spots; cheek with dark lines, 2 of which extend into the yellow color-

ing on underpart of head; no white dots on body; fins with dark dotted lines; ventral dusky; anal very indistinctly marked with dusky; no rows of wart-like mucous pores on cheek. Each of the specimens has a dark spot on center of base of ventrals.

Similar to *G. ornatus*, but with more robust body and blunter head. The markings are also slightly different.

Four specimens from Caldera Bay, Zamboanga, Mindanao; length 2.10 to 2.75 inches.

*Type*.—Cat. No. 53625, U.S.N.M.; length 2.50 inches.

### Family BLENNIIDÆ.

#### 17. SALARIAS ZAMBOANGÆ Evermann and Seale, new species.

Head 4.9 in length; depth 5.25; eye 4 in head; D. XII, 21; A. III, 22; lateral line short, ending under posterior third of dorsal; a distinct nuchal crest present; a fringed tentacle over eye; a small bifid tentacle at nostril; no nuchal tentacle; no posterior canine; dorsal fin slightly incised; anal connected by membrane to base of caudal rays.

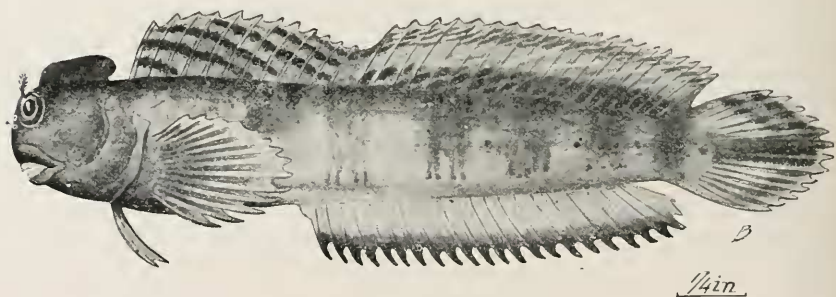


FIG. 4.—SALARIAS ZAMBOANGÆ.

Color in spirits, bluish olivaceous on back and side; underparts paler; about 7 broad double dark purplish bands over back and down side; middle and lower part of side posteriorly with two rows of small roundish black spots; head bluish; dorsal fin black on submargin, below which are short oblique white lines; lower half dark purplish with a series of white blotches along base; anal dark edged, the basal three-fourths lighter; caudal mottled with dark; pectoral and ventrals grayish.

This species is related to *S. meleagris*, from which it differs in the absence of the white spots on side, the less incised dorsal fin, the union of the dorsal fin with the caudal, and the absence of a nuchal tentacle.

Three specimens from Zamboanga, Mindanao; length 2.10 to 2.85 inches.

*Type*.—No. 55623, U.S.N.M., a specimen 2.85 inches long. Cotypes, No. 10007, Stanford University; and No. 1496, Bureau of Fisheries.